

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/731,475	NOMURA ET AL.	
	Examiner Mohammed Hasan	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to \_\_\_\_.
2.  The allowed claim(s) is/are 1 - 24.
3.  The drawings filed on \_\_\_\_ are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

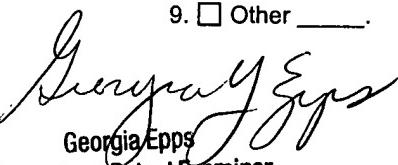
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment /Comment or in the Office action of Paper No./Mail Date \_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 3/10/2004
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_.



Georgia Epps  
Supervisory Patent Examiner

**DETAILED ACTION**

***Priority***

1. Receipt of acknowledged of papers submitted under 35 U.S.C. 119 (a) – (d), which papers have placed of record in the file.

***Oath/Declaration***

2. Oath and declaration filed on 12/10/2003 is accepted.

***Information Disclosure Statement***

3. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 3/10/2004 have all been considered and made of record (note the attached copy of form PTO – 1449).

***Drawings***

4. The drawings are objected to because Figures 1 and 2 need to label the zoom lens barrel 10. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet

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should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Allowable Subject Matter***

5. Claims 1- 24 are allowed.
6. The following is an examiner's statement of reasons for allowance: The prior art taken either singularly or in a combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims 1, 10 and 16, for example which include a lens distance – varying mechanism having a differential linking ring which rotates with

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the second lens frame and a differential ring which rotated the first lens frame and a first angle of rotation is greater than the second rotation angle (claim 1); and a plurality of inclined cam edges formed one of first cylindrical portion and second cylindrical portion and plurality of inclined cam edge being inclined to both circumferential direction and the optical axis direction and a plurality of cam followers formed cylindrical portion and second cylindrical portion to be engaged with plurality of inclined cam edges (claim 10);and a linear guide ring which moves together with cam ring along optical axis while allowing cam ring to rotate with respect to linear guide and a switching member which is positioned on a peripheral surface of linear guide to be relatively moveable in a circumferential direction with respect to linear guide ring and a switching member moving mechanism for moving switching member forward and reverse in circumferential direction of linear guide ring at an intermediate focal length in association with rotation of cam ring (claim 16).

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Iikawa et al (6,631,035 B2 ) discloses a varifocal lens barrel includes moveable lens group including a focusing lens group which is moved by differential amounts of movement at differential focal lengths, a focus operation ring, a focus lens frame which supports focusing lens group and a guide ride ring positioned around the focus lens frame.

Hamasaki (5,528,430) discloses a rotatable ring supporting mechanism in lens barrel.

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Nomura et al (6,519,096 B2) discloses a lens barrel includes a cam ring which rotates about an optical axis while moving in the optical axis direction and has a cam groove formed on an inner peripheral surface thereof.

Nomura et al (6,456,445 B2) discloses a zoom lens having a cam mechanism.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MH  
July 29, 2004



Georgia Epps  
Supervisory Patent Examiner  
Technology Center 2800